

AMENDMENTS TO THE CLAIMS

The following listing of claims should be entered to replace all prior listing of claims in the application. In accordance with Rule 121, the status of each claim is indicated parenthetically.

Listing of Claims:

Claims 1-39 (canceled)

40. (original) A method of converting a liquid to a gas, comprising the steps of:
 - a. providing a liquid;
 - b. pressurizing said liquid;
 - c. transferring said liquid to a nozzle located within a burner tube having an exterior surface and a first end;
 - d. dispersing said liquid at an aperture of said nozzle into heat generated by a burner located within said burner tube;
 - e. converting at least a portion of said liquid to a gas.
41. (original) A method of converting a liquid to a gas as described in claim 40, wherein said step of dispersing said liquid at an aperture of said nozzle into heat generated by a burner located within said burner tube comprises dispersing said liquid directly into a flame generated by said burner.
42. (original) A method of converting a liquid to a gas as described in claim 40, wherein said step of pressurizing said liquid comprises pressurizing said liquid to between about 100 pounds per square inch to about 3000 pounds per square inch.
43. (original) A method of converting a liquid to a gas as described in claim 40, further comprising the step of cooling said exterior surface of said burner tube.

44. (original) A method of converting a liquid to a gas as described in claim 40, further comprising the step of preheating said liquid prior to dispersing said liquid at said aperture of said nozzle.
45. (original) A method of converting a liquid to a gas as described in claim 44, wherein said step of preheating said liquid prior to dispersing said liquid at said aperture of said nozzle comprises increasing the temperature of said liquid to between about 150 degrees Fahrenheit to about 1000 degrees Fahrenheit (about 65.6 degrees Celsius to about 537.8 degrees Celsius).
46. (original) A method of converting a liquid to a gas as described in claim 40, further comprising the step of depositing solids dissolved in said liquid to a deposition surface as said liquid converts to gas.
47. (original) A method of converting a liquid to a gas as described in claim 46, further comprising the step of condensing a portion of said gas to a condensation surface.
48. (original) A method of converting a liquid to a gas as described in claim 47, further comprising the step of transferring condensate to said solids using a condensate transfer surface.
49. (original) A method of converting a liquid to a gas as described in claim 47, wherein said condensate and said solids produce a solution.
50. (original) A method of converting a liquid to a gas as described in claim 49, further comprising the step of collecting said solution at a location outside of said burner tube.
51. (original) A method of converting a liquid to a gas as described in claim 49, wherein said step of collecting said solution at a location outside of said burner tube occurs continuously as said liquid is converted to said gas.

52. (original) A method of converting a liquid to a gas as described in claim 40, further comprising the step of moving an increased gas volume away from said flame of said burner.
53. (original) A method of converting a liquid to a gas as described in claim 52, wherein said step of moving an increased gas volume away from said flame of said burner comprises generating a pressure gradient having sufficient change in atmospheric pressure per unit distance to move said increased gas volume within said burner tube, and wherein generating said pressure gradient comprises dispersing said liquid through said nozzle.
54. (original) A method of converting a liquid to a gas as described in claim 40, further comprising the step of arresting substances at said first end of said burner tube.
55. (original) A method of converting a liquid to a gas as described in claims 41, 42, 44, 46, 52, or 54, further comprising the step of orienting the longitudinal axis of said burner tube substantially horizontal to a supporting surface.
56. (original) A method of converting a liquid to a gas as described in claims 41, 42, 44, 46, 52, or 54, further comprising the step of orienting the longitudinal axis of said burner tube substantially vertical to a supporting surface, wherein said first end is proximate to said supporting surface.
57. (original) A method of converting a liquid to a gas as described in claims 40, wherein said step of converting at least a portion of said liquid to a gas comprises converting water to steam
58. (original) Distilled water produced in accordance with the process of claims 41, 42, 44, 46, 52, 54 or 57.
59. (original) Salts produced in accordance with the process of claims 41, 42, 44, 46, 52, 54 or 57.

60. An expanding gas volume produced in accordance with the process of claims 41, 42, 44, 46, 52, 54, or 57.

Claims 61-158 (cancelled).